



# DEPARTMENT OF ENVIRONMENT AND CONSERVATION DIVISION OF UNDERGROUND STORAGE TANKS

## PERMANENT CLOSURE REPORT

The Responsible Party (RP) for the underground storage tank (UST) system shall complete and submit the **original** of this report within 60 days of collecting samples during the UST system closure assessment. Tennessee Code Annotated (T.C.A.) 68-215-103(16) defines Responsible Party as the owner and/or operator of a petroleum site or any person who at the time of the release which caused the contamination was an owner and/or operator of a petroleum underground storage tank.

Date \_\_\_\_\_ Facility I.D. Number: \_\_\_\_\_-\_\_\_\_\_

**THIS REPORT IS NOT COMPLETE UNLESS THE FOLLOWING DOCUMENTS ARE ATTACHED IN AN APPENDIX:**

**ATTACHED:** (Check appropriate answer)

- |   |          |                     |
|---|----------|---------------------|
| <b>A. The original laboratory analysis sheets.</b><br>(The laboratory analysis sheets shall include all items specified in Section II.A.3. of the Closure Assessment Guidelines)  | Yes_____ | Not Applicable_____ |
| <b>B. Documentation for treatment of soil.</b><br>(i.e. Application to Treat Petroleum Contaminated Soil)   | Yes_____ | Not Applicable_____ |
| <b>C. Disposal Manifest(s) for soil.</b><br>(i.e. Solid Waste Permits, Landfill Disposal Manifests, etc.)   | Yes_____ | Not Applicable_____ |
| <b>D. Disposal Manifest for sludge.</b>   | Yes_____ | Not Applicable_____ |
| <b>E. Disposal Manifest(s) for liquid/ product.</b>   | Yes_____ | Not Applicable_____ |
| <b>F. Disposal Manifest(s) for tanks and/or piping.</b>   | Yes_____ | Not Applicable_____ |
| <b>G. Monitoring Well Information.</b><br>(i.e. boring log, monitoring well construction diagram, etc.)   | Yes_____ | Not Applicable_____ |
| <b>H. Updated Site Map.</b><br>An updated, post-closure site map shall be attached showing buildings, roads, utilities, former or existing UST Systems, product lines and dispensers, areas of over-excavation, areas of encountered bedrock, borings, surface water within 500 feet of the site, and sample points. The map shall also include soil stockpiles, their dimensions in feet, and properly labeled screening and sampling points. A measurement shall be included from one corner of the tank excavation(s) to a permanent structure (i.e. building, power pole, fire hydrant, etc.). Based on Question 15, identify the location of observed leaks. The site map shall include a north arrow. | Yes_____ | Not Applicable_____ |
| <b>I. Copy of the Amended Notification Form.</b><br><u>Send the original Amended Notification Form to the UST Nashville Central Office.</u>   | Yes_____ | Not Applicable_____ |

Permanent Closure Report

Facility ID#\_\_-\_\_-\_\_-\_\_-\_\_-\_\_

1. Facility Name: \_\_\_\_\_  
Street Address (no P.O. Boxes): \_\_\_\_\_  
City: \_\_\_\_\_, TN Zip Code: \_\_\_\_\_

2. Were UST personnel at the appropriate Environmental Assistance Center (EAC) notified at least one working day prior to collecting soil samples for the UST system closure assessment?

Yes\_\_\_\_\_ No\_\_\_\_\_

If yes, person contacted: \_\_\_\_\_

EAC contacted: \_\_\_\_\_ Date contacted: \_\_\_\_\_

Reported by: \_\_\_\_\_

If no, explain: \_\_\_\_\_

3. Was the tank atmosphere and work zone regularly tested with a combustible gas indicator in accordance with UST Regulations Appendix 6(2) and (3)?

Yes\_\_\_\_\_ No\_\_\_\_\_

If no, explain: \_\_\_\_\_

4. Was the tank(s) purged prior to closure?

Yes\_\_\_\_\_ No\_\_\_\_\_ Not Applicable\_\_\_\_\_

If yes, identify the method used to purge the tank atmosphere: Carbon dioxide gas\_\_\_\_\_  
Nitrogen\_\_\_\_\_ Eductor-type air movers\_\_\_\_\_ Diffused air blower\_\_\_\_\_

Dry ice (1.5 lb/100 gal.) \_\_\_\_\_ Other\_\_\_\_\_

If no, explain: \_\_\_\_\_

5. Was product piping drained into the tank?

Yes\_\_\_\_\_ No\_\_\_\_\_

If no, explain: \_\_\_\_\_

6. Was product piping removed? Yes\_\_\_\_\_ No\_\_\_\_\_

If no, explain: \_\_\_\_\_

7. Were all dispensers removed? Yes\_\_\_\_\_ No\_\_\_\_\_

If no, explain: \_\_\_\_\_

8. Were all liquids and/or sludge removed from the UST system?

Yes\_\_\_\_\_ No\_\_\_\_\_ Not Encountered\_\_\_\_\_

If no, explain: \_\_\_\_\_

9. Method of liquid and/or sludge storage: \_\_\_\_\_

10. Method of liquid and/or sludge disposal: \_\_\_\_\_

11. Was the tank(s) labeled in accordance with the UST Regulations Appendix 6(4)(f)?

Yes\_\_\_\_\_ No\_\_\_\_\_ Not Applicable\_\_\_\_\_

If no, explain: \_\_\_\_\_

12. Method of UST system storage/disposal:

Cut up for Disposal\_\_\_\_\_ Stored on Site\_\_\_\_\_ Stored off Site\_\_\_\_\_

Other\_\_\_\_\_ Not Applicable\_\_\_\_\_

**UST systems stored on site or off site are subject to Rules 1200-1-15-.07(2)(e), (f), (g), and Appendix 6.**

13. Location of UST system storage/disposal: \_\_\_\_\_

\_\_\_\_\_ Not Applicable\_\_\_\_\_

14. For closure in place, what inert solid material was used to fill the tank: Sand\_\_\_\_\_

Concrete\_\_\_\_\_ Concrete/ Bentonite\_\_\_\_\_ Not Applicable\_\_\_\_\_

Other (specify - liquid materials are not acceptable) \_\_\_\_\_

15. If contamination above minimum cleanup levels was encountered, then based on visual inspection of the UST components during removal, what component(s) appeared to have failed causing the contamination? (Check all that apply):

Piping (including joints)\_\_\_\_\_ Vent Lines (including joints)\_\_\_\_\_ Tanks\_\_\_\_\_

Spill/Overfill Equipment\_\_\_\_\_ Dispensers (including flex connectors)\_\_\_\_\_

Line Leak Detectors\_\_\_\_\_ Submersible Pump Heads\_\_\_\_\_ Unknown\_\_\_\_\_

None\_\_\_\_\_ Not Applicable\_\_\_\_\_ Provide specific details about what you observed:

\_\_\_\_\_  
\_\_\_\_\_

16. Based on your response to Question #15, what action or process was the cause(s) of the contamination? (Check all that apply):

Spill(s)\_\_\_\_\_ Overfill(s)\_\_\_\_\_ Pipe and/or Joint Failure\_\_\_\_\_

Human Error (i.e. accident, improper installation/repair, etc.)\_\_\_\_\_ Corrosion\_\_\_\_\_

Mechanical Failure (Line leak detector/submersible pump head, dispenser equipment)\_\_\_\_\_

Unknown\_\_\_\_\_ Not Applicable\_\_\_\_\_ Other (specify)\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

17. Amount of backfill material initially removed during UST system closure: \_\_\_\_\_cubic yards.

18. Total amount of material over-excavated after removal of the UST system: \_\_\_\_\_cubic yards.

19. If more than 100 cubic yards of material was over-excavated, were Division personnel in the appropriate Environmental Assistance Center contacted?

Yes\_\_\_\_\_ No\_\_\_\_\_ Not Applicable\_\_\_\_\_

If yes, person contacted: \_\_\_\_\_

EAC contacted: \_\_\_\_\_ Date contacted: \_\_\_\_\_

Reported by: \_\_\_\_\_

If no, explain: \_\_\_\_\_

All excavated material remaining on the site of generation or on a site owned by the generator or subsidiary of the generator shall be placed on plastic, covered with plastic and bermed. Sampling the excavated material in accordance with Technical Guidance Document (TGD)-005 shall be completed **prior** to treatment and/or proper disposal. If petroleum contaminated material is managed in accordance with TGD-009, the appropriate Application to Treat Petroleum Contaminated Soil shall be completed and submitted with the Permanent Closure Report to the local Environmental Assistance Center for approval. If the contaminated material is to be treated on a site owned by a third party, contact the Tennessee Division of Solid Waste Management.

20. Check all that apply regarding the management of the excavated material:

Thermal Treatment \_\_\_\_\_ Aerated \_\_\_\_\_ On Site \_\_\_\_\_ Off Site \_\_\_\_\_

Landfilled \_\_\_\_\_ Other \_\_\_\_\_ Not Applicable \_\_\_\_\_

21. After tank removal, what material was used to backfill the excavation?

Gravel/Crushed Rock \_\_\_\_\_ Clean Soil Fill \_\_\_\_\_ Excavated Soil Pile \_\_\_\_\_

Other (Describe) \_\_\_\_\_ Not Applicable \_\_\_\_\_

All excavations shall be backfilled with material containing petroleum levels at or below the minimum cleanup level(s) of 5-PPM Benzene and/or 100-PPM TPH.

22. If the excavated soil pile was used as backfill, was the material screened and sampled in accordance with TGD-005 and found to be below the minimum cleanup level(s) prior to use as backfill?

Yes\_\_\_\_\_ No\_\_\_\_\_ Not Applicable\_\_\_\_\_

If no, explain: \_\_\_\_\_

23. Was water encountered in the soil boring(s) during closure-in-place?

Yes\_\_\_\_\_ No\_\_\_\_\_ Not Applicable\_\_\_\_\_

If yes, was a monitoring well installed and water sampled? Yes\_\_\_\_\_ No\_\_\_\_\_

If no, explain: \_\_\_\_\_

24. Was water encountered during excavation of the UST system?

Yes\_\_\_\_\_ No\_\_\_\_\_ Not Applicable\_\_\_\_\_

If yes, amount of water removed:\_\_\_\_\_gals. (Max. of 500-gals. without Division approval).

Did water recharge within 24 hours? Yes\_\_\_\_\_ No\_\_\_\_\_

Was recharge water sampled? Yes\_\_\_\_\_ No\_\_\_\_\_

If no, explain: \_\_\_\_\_

Method of water disposal:\_\_\_\_\_

25. If more than 500 gallons of water was removed, were Division personnel in the appropriate Environmental Assistance Center contacted?

Yes\_\_\_\_\_ No\_\_\_\_\_ Not applicable\_\_\_\_\_

If yes, person contacted: \_\_\_\_\_

EAC contacted: \_\_\_\_\_ Date contacted: \_\_\_\_\_

Reported by: \_\_\_\_\_

If no, explain: \_\_\_\_\_

26. Was bedrock encountered during UST system removal/closure-in-place?

Yes\_\_\_\_\_ No\_\_\_\_\_

27. Were soil samples collected from at least one foot below the floor of the UST system excavation(s)?

Tank(s): Yes\_\_\_\_ No\_\_\_\_ Not Applicable\_\_\_\_

Product Line Trench(s): Yes\_\_\_\_ No\_\_\_\_ Not Applicable\_\_\_\_

Dispenser(s): Yes\_\_\_\_ No\_\_\_\_ Not Applicable\_\_\_\_

If no, explain: \_\_\_\_\_

28. Was all contaminated material above the applicable cleanup level excavated?

Yes\_\_\_\_ No\_\_\_\_ Not Applicable\_\_\_\_

If no, explain: \_\_\_\_\_

29. For Closure-in-Place, were soil samples collected from the boring depths specified in Section IV. of the Closure Assessment Guidelines?

Tank(s): Yes\_\_\_\_ No\_\_\_\_ Not Applicable\_\_\_\_

Product Line Trench(s): Yes\_\_\_\_ No\_\_\_\_ Not Applicable\_\_\_\_

Dispenser(s): Yes\_\_\_\_ No\_\_\_\_ Not Applicable\_\_\_\_

If no, explain: \_\_\_\_\_

30. Were all samples placed directly into the appropriate containers immediately after collection?

Yes\_\_\_\_ No\_\_\_\_ If no, explain: \_\_\_\_\_

31. Were all samples immediately placed on ice after collection and maintained at 4°C until delivered to a laboratory?

Yes\_\_\_\_ No\_\_\_\_ If no, explain: \_\_\_\_\_

32. In accordance with Rule 1200-1-15-.06(2)(a), was laboratory confirmation of petroleum contamination or discovery of free product reported to the Division within 72 hours?

Yes\_\_\_\_ No\_\_\_\_ Not applicable\_\_\_\_

If yes, person contacted: \_\_\_\_\_

EAC contacted: \_\_\_\_\_ Date contacted: \_\_\_\_\_

Reported by: \_\_\_\_\_

If no, explain: \_\_\_\_\_

33. Analytical Tables. Complete all applicable tables below:

**TABLE 1 – BENZENE AND MTBE SOIL ANALYTICAL RESULTS**

| Sample/Boring #<br>(Tank, Line, &<br>Dispenser) | Sample Date | Sample Depth<br>(Feet) - Below Ground<br>Surface (BGS) | Field Screening<br>Results (PPM) | MTBE<br>Analytical<br>Results (PPM) | Benzene<br>Analytical<br>Results (PPM) |
|---|-------------|--|----------------------------------|-------------------------------------|--|
|   |             |  |                                  |                                     |  |
|   |             |  |                                  |                                     |  |
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|   |             |  |                                  |                                     |  |
|   |             |  |                                  |                                     |  |

**TABLE 2 – GRO AND EPH SOIL ANALYTICAL RESULTS**

| Sample/Boring #<br>(Tank, Line, &<br>Dispenser) | Sample<br>Date | Sample<br>Depth (Ft)<br>(BGS) | Field<br>Screening<br>Results (PPM) | GRO<br>Analytical<br>Results (PPM) | EPH<br>Analytical<br>Results (PPM) | Sum of GRO +<br>EPH Analytical<br>Results (PPM) |
|---|----------------|-------------------------------|-------------------------------------|------------------------------------|------------------------------------|---|
|   |                |                               |                                     |                                    |                                    |   |
|   |                |                               |                                     |                                    |                                    |   |
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|   |                |                               |                                     |                                    |                                    |   |
|   |                |                               |                                     |                                    |                                    |   |

### TABLE 3 – GROUND WATER ANALYTICAL RESULTS

| Sample Location<br>(i.e. MW #, Pit #,<br>Recharge Water) | Sample Date | MTBE<br>Analytical<br>Results<br>(PPM) | Benzene<br>Analytical<br>Results<br>(PPM) | GRO<br>Analytical<br>Results<br>(PPM) | EPH<br>Analytical<br>Results<br>(PPM) | Sum of GRO +<br>EPH Analytical<br>Results (PPM) |
|--|-------------|--|---|---------------------------------------|---------------------------------------|---|
|  |             |  |   |                                       |                                       |   |
|  |             |  |   |                                       |                                       |   |
|  |             |  |   |                                       |                                       |   |
|  |             |  |   |                                       |                                       |   |
|  |             |  |   |                                       |                                       |   |

**TABLE 4 – EXCAVATED SOIL/ STOCKPILED SOIL ANALYTICAL RESULTS**[illegible]



The following signature page shall be signed by the RP (or authorized representative within the Responsible Party's organization). If more than 100 cubic yards of material was over-excavated, contaminated ground water was encountered, and/ or a monitoring well was installed, the following signature page shall also be signed by a registered professional geologist under the Tennessee Geologist Act (T.C.A. §62-36-101 et seq.), registered professional engineer under the Tennessee Architects, Engineers, and Landscape Architects, and Interior Designers Law and Rules (T.C.A. §62-2-101 et seq.), or an approved Corrective Action Contractor in accordance with Rule 1200-1-15.09(15).

I certify under penalty of law, including but not limited to penalties for perjury, that the information contained in this form and on any attachments are true, accurate and complete to the best of my knowledge, information and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for intentional violations.

\_\_\_\_\_  
UST System RP or RP's authorized  
Representative (Print name)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title (Print)

\_\_\_\_\_  
PE, PG, or CAC (Print name)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
TN Registration #

\_\_\_\_\_  
CAC Company (Print)

Note: Each of the above signatures shall be notarized separately with the following statement:

STATE OF \_\_\_\_\_ COUNTY OF \_\_\_\_\_

Sworn to and subscribed before me by \_\_\_\_\_

on this date \_\_\_\_\_. My commission expires \_\_\_\_\_.

\_\_\_\_\_  
Notary Public (Print Name)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Stamp/Seal